

Fig. 5

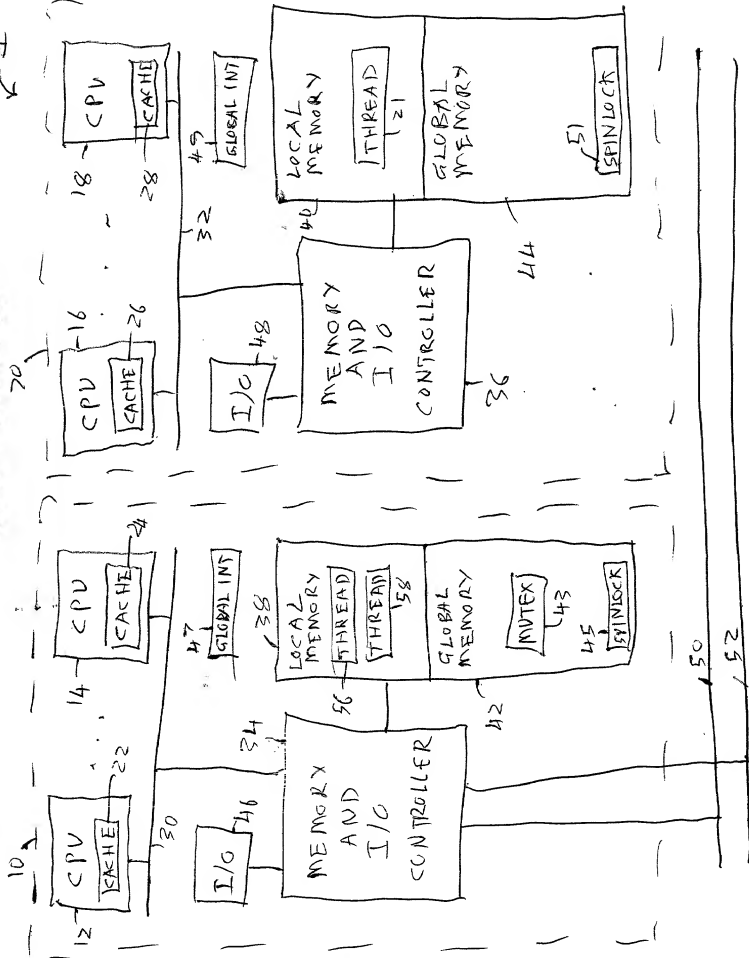
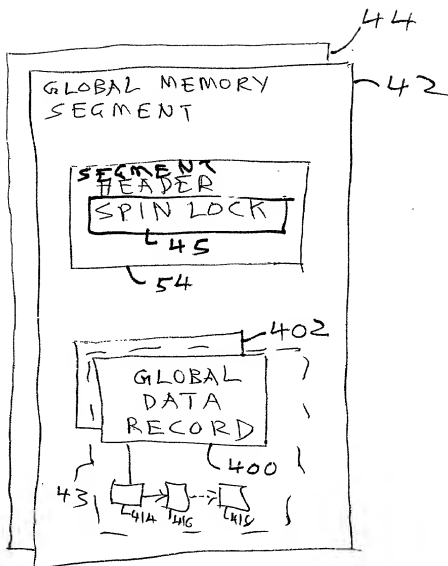


FIG. 2



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FIG. 3

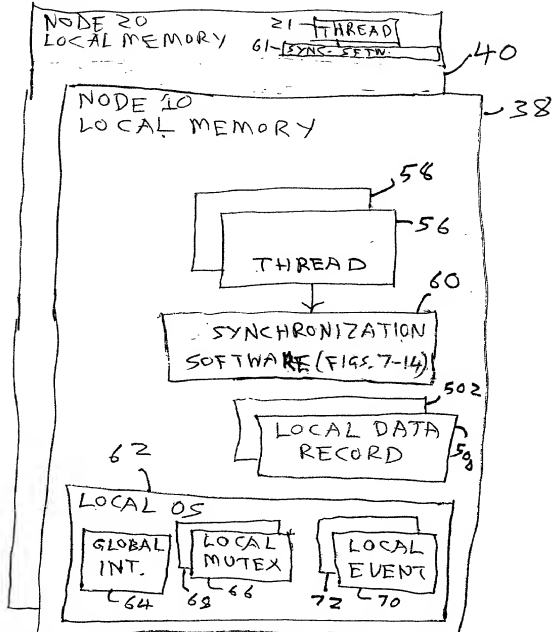


FIG. 4

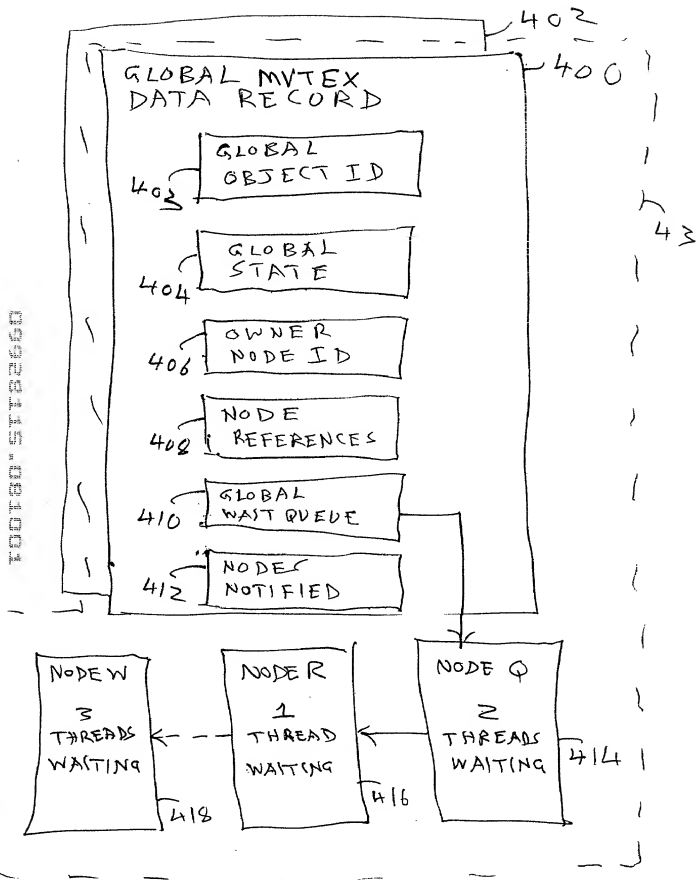


FIG. 5

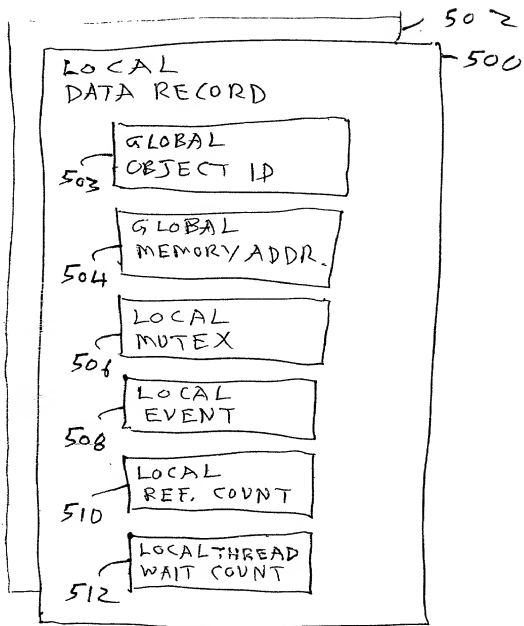


FIG. 6

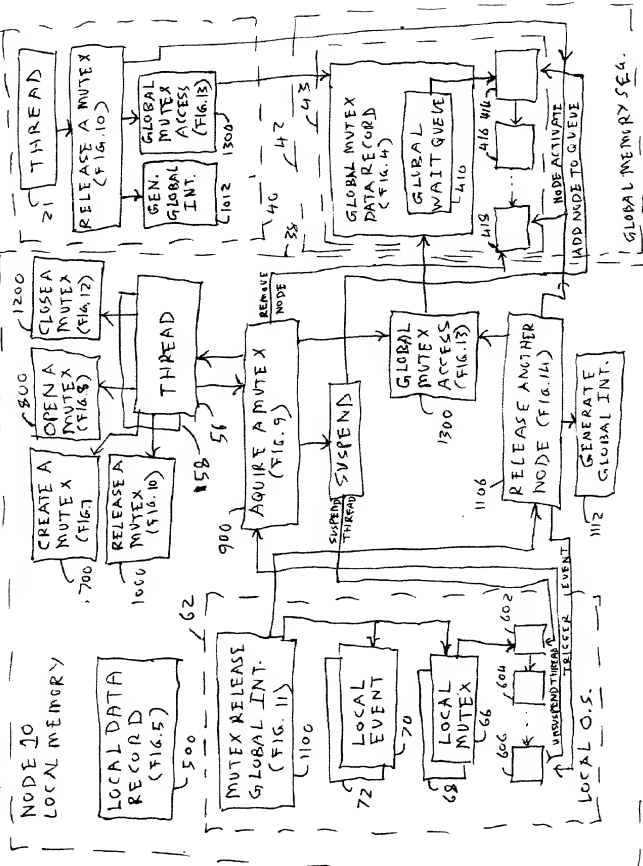


FIG. 7

CREATE A MUTEX X

700

702

CREATE A NEW GLOBAL
OBJECT I.D.

704

ALLOCATE AND INITIALIZE
A NEW GLOBAL RECORD

706

ON THE NODE WHERE THE
CALLING THREAD IS RUNNING,
CREATE A LOCAL MUTEX 66
AND A LOCAL EVENT 70
BY CALLS
TO THE LOCAL OPERATING
SYSTEM 62)

708

ALLOCATE AND INITIALIZE
A NEW LOCAL DATA RECORD, AND
ASSOCIATE IT WITH THE NEW
GLOBAL RECORD.

RETURN

FIG.

8

OPEN A MUTEX

800
↘



IF THE CALLING THREAD IS
THE FIRST TO USE THE GLOBAL
MUTEX ON ITS NODE, CARRY
OUT STEPS 706 AND 708 IN FIG. 7
TO CREATE ON THAT NODE
A LOCAL MUTEX AND EVENT.

802



INCREMENT
THE LOCAL REFERENCE COUNT
510 (FIG. 5) IN THE LOCAL DATA
RECORD 500 OR 502 FOR THE
NODE.

804



RETURN

PROCESSOR

FIG. 9

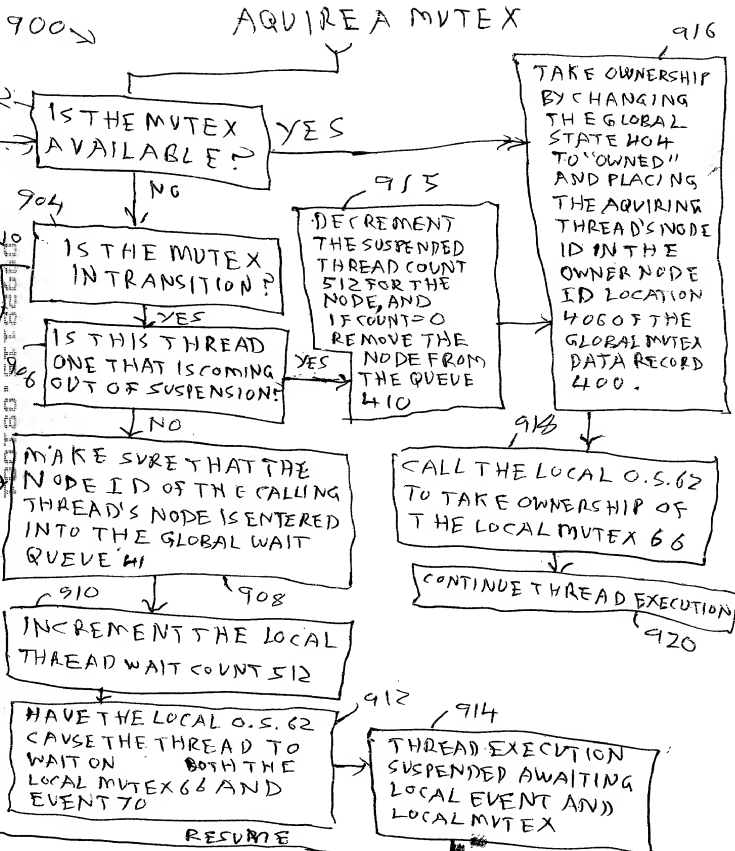


FIG. 10

RELEASE A MUTEX

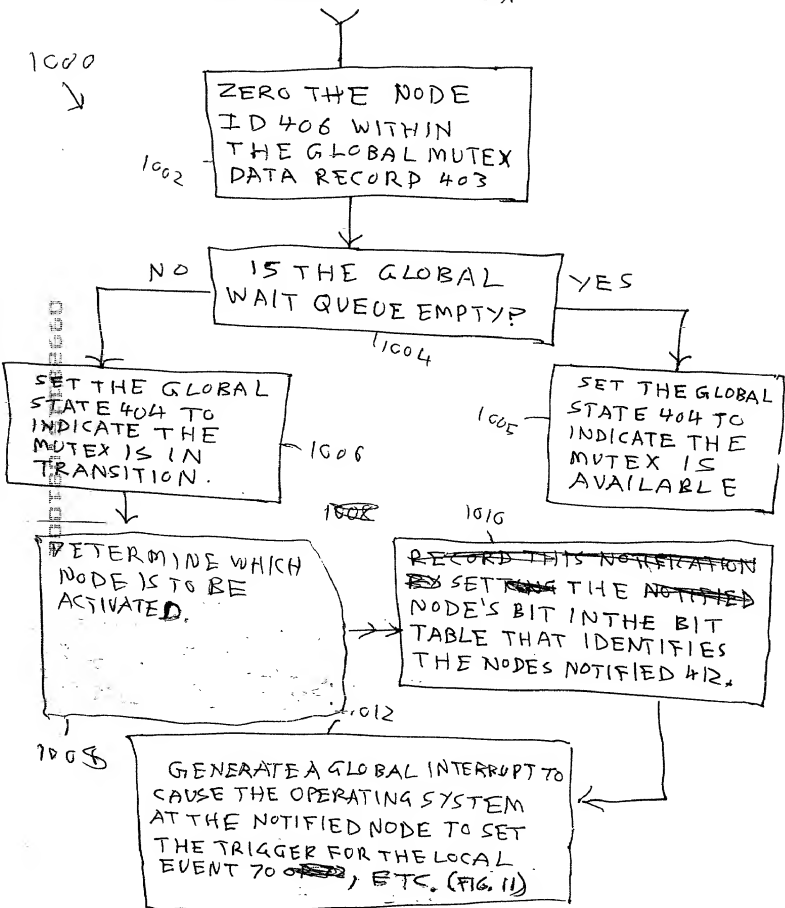


Fig. 11

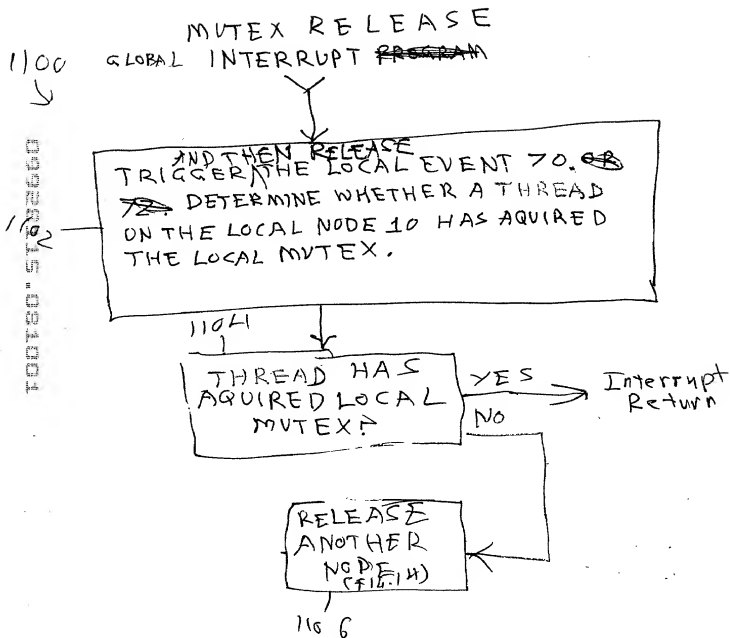


FIG.

12

CLOSE A MUTEX

1200
↓

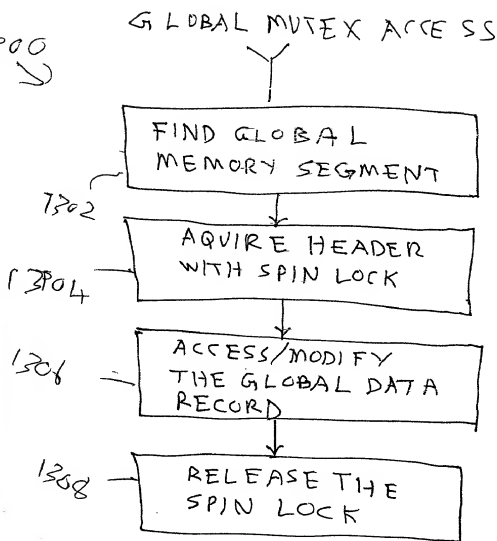
IF THIS IS NOT THE LAST THREAD
ON THE NODE THAT HAS OPENED
THIS MUTEX, THEN DECREMENT
THE LOCAL REFERENCE COUNT 510.

1202

OTHERWISE DEALLOCATE THE LOCAL
DATA RECORD 500 ~~AND~~ HAVE THE
LOCAL OPERATING SYSTEM ⁶² CLOSE THE
LOCAL MUTEX ~~66~~ ~~AND~~
AND THE LOCAL EVENT ~~70~~ ~~OR~~ ~~72~~.

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1300

FIG. 13



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FIG. 14

RELEASE A NOTHER NODE

